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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/349,211	07/02/1999	TATSUYA YOSHIDA	381NP/47981	6315

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EXAMINER

DEBERADINIS, ROBERT L

ART UNIT	PAPER NUMBER
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2836

DATE MAILED: 11/30/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/349,211

Applicant(s)

TATSUYA YOSHIDA et al.

Examiner

ROBERT L. DEBERADINIS

Art Unit

2836

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Sep 7, 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 20) ☐ Other:

Art Unit: 2836

Response to Arguments

1. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

3. Claims 1,2 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by KON'I 6,166,453.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2836

5. Claims 3-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over KON'I 6,166,453 in view of Examiner taking official notice.

Regarding claims 3-8,14,20,22,23.

KON'I discloses a power supply apparatus for a motor vehicle, comprising:

- a battery (1);

- a load drive electric power line (20) wired in an interior of a vehicle from the battery for driving a vehicle load;

- a control circuit drive electric power line wired in said interior of said vehicle from a battery for driving a control apparatus (load drive circuits);

- at least one control apparatus (14) including a control circuit which is supplied with power from said control circuit drive electric power line; and

- a load drive circuit (14) provided between said load drive electric power line (20B,20D) and said load (40,41), for controlling a supply of power to said load in response to a signal from said control circuit.

KON'I does not disclose a first fuse or a second fuse. The use and the arrangement of fuses to protect desired circuits is well known in the art. It would have been obvious to one having ordinary skill in the art to select and to arrange a configuration of fuses to protect the desired electrical components of a system should a malfunction occur.

Regarding claim 9.

Refer to column 17, lines 1-24.

Art Unit: 2836

Regarding claim 10.

The selection of power line sizes based on the required current capacity is well known in the art. It would have been obvious to one having ordinary skill in the art at the time of this invention to select smaller wire sizes for wires servicing loads that were drawing less current to reduce the bulkiness of the power line.

Regarding claims 11,15,18.

KON'I discloses drive circuits switching to control power to the load drive circuits (refer to column 17, lines 1-24). KON'I is silent as to relays performing the power line switching. It is well known in the art that relays are switching devices. It would have been obvious to one having ordinary skill in the art at the time of this invention to use relays as the switching device to select a switch state from a remote location.

Regarding claims 12,13.

The configuration of vehicle circuits arranged in a protective wiring configuration using fuses is well known in the art. It would have been obvious to one having ordinary skill in the art at the time of this invention to provide separate fuses for selected circuits such as the ignition system so that if a light blows its fuse, the vehicle could still be started.

Regarding claim 16.

KON'I does not disclose a self shutdown type semiconductor switching element. Semiconductor switching elements used as a switching element is well known in the art and the switching element being controlled by a sensor i.e. a thermostat, wherein the thermostat switches

Art Unit: 2836

off the heating unit in a home when the temperature reaches a set point is well known. It would have been obvious to one having ordinary skill in the art at the time of this invention to use a self shutdown semiconductor switching element, wherein the switching element senses current to protect the load circuit in the event of a short.

Regarding claim 17,19.

Refer to column 5, lines 33 plus.

Regarding claim 21.

Refer to KON'I abstract. KON'I discloses a plurality of electric loads divided into more than one group, each of the groups is driven by each of a plurality of load driver circuits by feeding power to each of the load drive circuits from the power source, provided at the vicinity of each of set places in the vehicle at which a group of the electrical loads are concentratedly arranged. KON'I does not disclose specific electric loads in a vehicle. It would have been obvious to one having ordinary skill in the art at the time of this invention to include the ignition relay as one of the electrical loads disclosed in KON'I to provide a means to start the vehicle.

Regarding claim 24.

KON'I is silent as to fuses and the placement of fuses. As stated in above fuses are well known in the art. It would be obvious to one having ordinary skill in the art at the time of this invention to place the fuse in the vicinity or adjacent to the device it was protecting to aid in identifying the malfunction.

Art Unit: 2836

Regarding claim 25.

KON'I in view of the Examiner taking official notice disclose the claimed invention except for a sleep control circuit. It would have been an obvious matter of design choice to disconnect a load to prevent current flowing in a circuit when the power is not needed in a specific load to prevent the battery from discharging when vehicle is not in use.

Conclusion

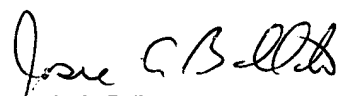
6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. KON'I 5,917,249, KON'I 5,808,371 both disclose an apparatus for driving electrical loads provided at a vehicle with priority dates reaching back to Sept. 1995.

Any inquiry concerning this communication should be directed to Robert L. DeBeradinis whose number is (703) 306-5857. The examiner can normally be reached on Monday-Friday from 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Josie Ballato, can be reached on (703) 308-0269. The fax phone number for this Group is (703) 308-7722.

RLD

NOVEMBER 7, 2001


Josie Ballato
Supervisory Patent Examiner
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11/9/01